

Remarks

The Applicants have amended independent claims 15 and 29. No claims have been added or cancelled. Thus claims 15-34 remain pending.

Claims 15-34 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter which the Applicants regard as the invention. Claims 15-34 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. The Applicants respectfully request reconsideration and withdrawal of the rejections.

The method step of lines 5-7 of claims 15 and 29 is rejected for failing to clearly describe the action. The Applicants respectfully submit that the “integrating” element of each of claims 15 and 29 is clear. The “integrating” step includes the integration of “digital signals representative of reflectivity” that were generated in the preceding step. The integration is performed “by assimilation of a reflectivity vertical profile.” As a result, “a signal representative of the profile in the vertical plane” is generated. The result is used in the following step to determine and display “concentration of the solid particles.”

Claim 15 is rejected for the phrase “signals previously determined” lacking antecedent basis. The phrase “signals previously determined” is replaced by “signals representative of the profile in a vertical plane of a mean particle diameter weighted by mass of each particle.”

Claim 29 is rejected for lacking clear antecedent basis in the phrase “signals determined in the preceding steps.” Claim 29 is amended to replace the phrase “signals determined in the preceding steps” with “signals representative of the profile in a vertical plane of a mean particle diameter weighted by mass of each particle.”

The rejection states that claims 15-34 are directed to “purely mathematical manipulation” and

“do not fall into one of the statutory categories of invention.” The rejection further states that “no practical use is made of” the result of the claim elements. Independent claims 15 and 29 are amended to recite a practical use and, as amended, are not directed to pure mathematical manipulation. In particular, claim 15 and claim 29 are amended to recite that “a vertical unit of said precipitation zone” is processed “via a computation unit” and that “concentration of the solid particles on the basis of signals representative of the profile in a vertical plane of a mean particle diameter weighted by mass of each particle” are determined and displayed “on a display device connected to the computation unit.” Displaying a concentration of the solid particles on a display device is a practical use that is not purely mathematical manipulation as the display of the concentration may be observed, studied, or otherwise utilized by a user.

In view of the foregoing, the Applicants submit that the entire application is now in condition for allowance, which action is earnestly requested.

Respectfully submitted,



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